

IN THE CLAIMS

Please add new claims 31 through 55 as follows. Claims 15, 28, and 30 are not hereby amended and are reproduced below for the Examiner's convenience. Claims 15, 28, and 30 were allowed.

Claims 1-14 have been cancelled.

- 1 15. (Unchanged) An apparatus comprising:
  - 2 a keyboard having a thermally conductive support plate, said support
  - 3 plate having a substantially planar bottom surface;
  - 4 a flat heat pipe attached to said bottom surface of said keyboard support
  - 5 plate, a heat generating device thermally coupled to said flat heat pipe; and
  - 6 air moving means for producing an air flow through a housing, at least a
  - 7 portion of said housing being thermally coupled to said flat heat pipe, wherein
  - 8 said housing includes at least one fin disposed in the path of said air flow, said
  - 9 heat pipe thermally coupled to said fin.

Claims 16-27 have been cancelled.

- 1 28. (Unchanged) An apparatus comprising:
  - 2 a keyboard having a thermally conductive support plate, said support
  - 3 plate having a substantially planar bottom surface;

4           a flat heat pipe attached to said bottom surface of said keyboard support  
5   plate, a heat generating device thermally coupled to said flat heat pipe; and  
6           a fan for producing air flow through a fan housing, said fan housing  
7   thermally coupled to said flat heat pipe, wherein said flat heat pipe has a first  
8   end and a second end, said heat generating device is thermally coupled to said  
9   flat heat pipe adjacent to said first end, and said fan housing is thermally coupled  
10   to said flat heat pipe adjacent said second end.

Claim 29 has been cancelled.

1   30. (Unchanged) An apparatus comprising:  
2           a keyboard having a thermally conductive support plate, said support  
3   plate having a substantially planar bottom surface;  
4           a flat heat pipe attached to said bottom surface of said keyboard support  
5   plate, a heat generating device thermally coupled to said flat heat pipe; and  
6           a fan for producing air flow through a fan housing, said fan housing  
7   thermally coupled to said flat heat pipe, wherein said flat heat pipe includes two  
8   metal plates having respective first surfaces joined together and having  
9   respective second surfaces, at least one of said metal plates being formed such  
10   that a channel is formed between said first surfaces of said metal plates and a  
11   protrusion is formed on said second surface of said formed metal plate, said  
12   protrusion corresponding to said channel.

Please add the following new claims.

1 ~~2~~ <sup>31</sup> (New) The apparatus of claim ~~15~~, wherein said flat heat pipe comprises a plurality of micro-channels that are arranged parallel to one another.

1 ~~3~~ <sup>32</sup> (New) The apparatus of claim ~~15~~, wherein said air moving means comprises a fan.

1 ~~4~~ <sup>3</sup> ~~38~~ (New) The apparatus of claim ~~32~~ further comprising a control circuit for switching said fan on or off in response to a temperature measurement on said keyboard.

1 ~~5~~ <sup>3</sup> ~~34~~ (New) The apparatus of claim ~~32~~ further comprising a control circuit for switching said fan on or off in response to a temperature measurement of said heat generating device.

1 ~~6~~ <sup>3</sup> ~~35~~ (New) The apparatus of claim ~~32~~ further comprising:  
2       a temperature sensing device attached to said keyboard; and  
3       a controller for receiving a signal from said temperature sensing device,  
4       said controller switching said fan on or off in response to said signal.

1 ~~36.~~ <sup>3</sup> (New) The apparatus of claim ~~32~~ further comprising:  
2       a temperature sensing device attached to said heat generating device; and  
3       a controller for receiving a signal from said temperature sensing device,  
4       said controller switching said fan on or off in response to said signal.

1 ~~37.~~ <sup>1</sup> (New) The apparatus of claim ~~15~~ wherein said flat heat pipe covers at  
2       least about one-half of the surface area of said bottom surface of said keyboard  
3       support plate.

1 ~~38.~~ <sup>1</sup> (New) The apparatus of claim ~~15~~ wherein said flat heat pipe covers  
2       substantially the entire surface area of said bottom surface of said keyboard  
3       support plate.

1 ~~39.~~ <sup>10</sup> (New) The apparatus of claim ~~15~~ wherein said flat heat pipe defines an  
2       open area sized to accommodate a component of said portable computer.

1 ~~40.~~ <sup>12</sup> (New) The apparatus of claim ~~28~~, wherein said flat heat pipe comprises a  
2       plurality of micro-channels that are arranged parallel to one another.

1 ~~41.~~ <sup>13</sup> (New) The apparatus of claim ~~28~~ further comprising a control circuit for  
2       switching said fan on or off in response to a temperature measurement on said  
3       keyboard.

1 142. (New) The apparatus of claim 28 further comprising a control circuit for  
2 switching said fan on or off in response to a temperature measurement of said  
3 heat generating device.

1 15 11  
1 143. (New) The apparatus of claim 28 further comprising:  
2 a temperature sensing device attached to said keyboard; and  
3 a controller for receiving a signal from said temperature sensing device,  
4 said controller switching said fan on or off in response to said signal.

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1 144. (New) The apparatus of claim 28 further comprising:  
2 a temperature sensing device attached to said heat generating device; and  
3 a controller for receiving a signal from said temperature sensing device,  
4 said controller switching said fan on or off in response to said signal.

1 17 11  
1 145. (New) The apparatus of claim 28 wherein said flat heat pipe covers at  
2 least about one-half of the surface area of said bottom surface of said keyboard  
3 support plate.

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1 146. (New) The apparatus of claim 28 wherein said flat heat pipe covers  
2 substantially the entire surface area of said bottom surface of said keyboard  
3 support plate.

1 <sup>19</sup> ~~47.~~ (New) The apparatus of claim <sup>28</sup> wherein said flat heat pipe defines an  
2 open area sized to accommodate a component of said portable computer.

1 <sup>21</sup> ~~48.~~ (New) The apparatus of claim <sup>20</sup> wherein said flat heat pipe comprises a  
2 plurality of micro-channels that are arranged parallel to one another.

1 <sup>22</sup> ~~49.~~ (New) The apparatus of claim <sup>20</sup> further comprising a control circuit for  
2 switching said fan on or off in response to a temperature measurement on said  
3 keyboard.

1 <sup>23</sup> ~~50.~~ (New) The apparatus of claim <sup>20</sup> further comprising a control circuit for  
2 switching said fan on or off in response to a temperature measurement of said  
3 heat generating device.

1 <sup>24</sup> ~~51.~~ (New) The apparatus of claim <sup>20</sup> further comprising:  
2 a temperature sensing device attached to said keyboard; and  
3 a controller for receiving a signal from said temperature sensing device,  
4 said controller switching said fan on or off in response to said signal.

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1 52. (New) The apparatus of claim 30 further comprising:  
2 a temperature sensing device attached to said heat generating device; and  
3 a controller for receiving a signal from said temperature sensing device,  
4 said controller switching said fan on or off in response to said signal.

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1 53. (New) The apparatus of claim 30 wherein said flat heat pipe covers at  
2 least about one-half of the surface area of said bottom surface of said keyboard  
3 support plate.

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1 54. (New) The apparatus of claim 30 wherein said flat heat pipe covers  
2 substantially the entire surface area of said bottom surface of said keyboard  
3 support plate.

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1 55. (New) The apparatus of claim 30 wherein said flat heat pipe defines an  
2 open area sized to accommodate a component of said portable computer.